1. GEL'MAN, R.Ye.

2. USSR (600)

4. Electric Switchgear

7. Disconnecting switches for the internal installation of the plant of the Ministry of Electric Power Stations and Electrical Industry, Eng. R.Ye. Gel'man, Prom.energ. 10 no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, __APRIL__ 1953, Uncl.

GEL'MAN, R.E., inzhener,

Electric engineering. Page 88. Cables trademark SG, SA, SBG, SB, SPG, SP, SK, SBG-IK, SB-IK, SBG-2K, SB-2K manufactured by plants of the Ministry of Electric Power Stations and Electrical Industry (specifications and weight of lead, kg/km). Prom.energ. 10 no.5:31 My '53.   (MLRA 6:5)
(Electric cables)

AVINOVITSKIY, I.Ya.: ALEKSEYEV, S.V.; BARANOV, B.M.; GEL'MAN, R.Ye.;
    DVOSKIN, L.I.; DOLGINOV, A.I.; YERMILOV, A.A.; ZALESSKIY, Yu.Ye.;
    KAMENEVA, V.V.; KLIMIKSEYEV, V.M.; KNYAZEVSKIY, B.A.; KUZNETSOV,
    P.V.; RIVKIN, G.A.; FEDOROV, A.A.; SERBINOVSKIY, G.V., red.;
    BOL'SHAM, Ya.M., red.; BRANDENBURGSKAYA, E.Ya., red.; VORONIN,
    K.P., tekhn. red.

    [Manual for power engineers of industrial enterprises in four
    volumes] Spravochnik energetika promyshlennykh predpriiatii v
    chetyrekh tomakh. Moskva, Gosenergoizdat. Vol.1. [Electric power
    supply] Elektrosnabzhenie. Pod obshchei red. A.A.Fedorova, G.V.
    Serbinovskogo i IA.M.Bol'shama. 1961. 840 p.   (MIRA 15:6)
                    (Electric engineering)

BACHELIS, D.S.; GEL'MAN, R,Ye,; DUTKIN, G.S.; KULESHOV, Ya.G.;
    NIKULIN, N.V.; RYVKIN, G.A.; SADKIN, P.I.; SMIRNOV, A.D.;
    SOLOV'YEV, P.F.; KHALIZEV, G.P.; SMIRNOV, A.D., inzh., red.;
    SOLOV'YEV, P.F., red.; BORUNOV, N.N., tekhn. red.

    [Manual for electricians in two parts]Spravochnik elektrotekhnika
    v dvukh tomakh. Pod obshchei red. A.D.Smirnova. Moskva, Gos-
    energoizdat. Vol.1. 1962. 479 p.   (MIRA 15:5)
        (Electric engineering—Handbooks, manuals, etc.)

GEL'MAN, R.Ye.; KULESHOV, Ya.T.; SADKIN, P.I.[deceased]; SMIRNOV,
    A.D., Inzh., red.; SEGAL, Ye.I., red.; BORONOV, N.I.,
    tekhn. red.

[Electrician's manual in two volumes] Spravochnik elektro-
tekhnika v dvukh tomakh. Pod obshchei red. A.D.Smirnova.
Moskva, Gosenergoizdat. Vol.2. No.1. [High-voltage apparatus]
Apparatura vysokogo napriazheniia. 1963. 104 p.
                                          (MIRA 16:11)
    (Electric engineering--Handbooks, manuals, etc.)

GEL'MAN, R.Ye.; KULESHOV, Ya.T.; SADKIN, P.I.[deceased]; SMIRNOV, A.D., inzh., red.; BORUNOV, N.I., tekhn. red.

[Manual for electricians in two volumes] Spravochnik elektrotekhnika v dvukh tomakh. Pod obshchei red. A.D. Smirnova. Moskva, Gosenergoizdat. Vol.2. [Complex electrical equipment] Kompleksnoe elektrooborudovanie. 1963. 255 p.   (MIRA 17:2)

GAL'MAN, M.Ye., inzh.; TOTIEN, V.C., inzh.; RILLMA, A.A., inzh. red.

[Electricians manual on two volumes] Spravochnik elektro-
tekhnika v dvukh tomakh. Moskva, Izd-vo "Energiia."
Vol.2. No.5. [Start regulating apparatus] Puskoreguli-
ruiushchaia apparatura. 1964. 199 p.   (MIRA 17:8)

GEL'MAN, R.Ye.; MESTECHKIN, M.M.; SMIRNOV, A.D., inzh., red.

    [Electrical engineering manual in two volumes] Spravoch-
    nik elektrotekhnika v dvukh tomakh. Moskva, Energiia.
    Vol.2. 1964. 184 p.   (MIRA 17:12)

GEL'MAN, R.Ye.; KULESHOV, Ya.T.; SAVOST'YANOV, A.I.; SMIRNOV,
    A.D.; inzh., red.

    [Electrical engineering handbook in two volumes] Spra-
    vochnik elektrotekhnika v dvukh tomakh. Moskva, Energiia.
    Vol.2. No.3. 1965. 240 p.   (MIRA 18:6)

S/081/62/000/003/054/090
B149/B102

AUTHOR: Gel'man, S. A.

TITLE: Lengthening the life of concrete in marine hydrotechnical
                constructions erected in the Far North

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 391, abstract
                3K353 (Tr. N.-i. in-ta betona i zhelezobetona, Akad. str-va
                i arkhitekt. SSSR, no. 22, 1961, 93 - 104)

TEXT: Methods are described and preliminary results given of a two year
test of frost-resisting properties of 20 cm concrete cubes under the
natural conditions of Kola Bay. The samples of concrete tested were of
identical composition by weight, with or without air-absorbing additives
(abietic tar neutralized with NaOH); cement consumption and ease of
laying were assumed to be identical for both types of concrete. The same
ease of laying in the case of concrete with added abietic acid was ob-
tained by decreasing the ratio water/cement from 0.48 to 0.43. Towards
the end of the second winter (after 750 cycles of freezing and thawing)
all the samples without the admixture of tar had completely disintegrated,

Card 1/2

Lengthening the life of...   S/081/62/000/005/054/090
                                              B149/B102

·those with the admixture had lost < 1% of their weight. By means of air-
absorbing additives it is possible to increase considerably the
resistance to freezing of concrete in marine hydrotechnical constructions.
[Abstracter's note: Complete translation.]

Card 2/2

GEL'MAN, T. M.

6949. MARKOV, D. A. i GEL'MAN, T. M. Epilepsii i ikh lecheniye. Minsk, Izd-vo Akad. nauk BSSR, 1954 -296s. a ill. 23 sm. (Belorus, nauch.-issled. in-t nevrologii, neyrokhirurgii, fizioterapii i klinika nervnykh bolezney Belorus, in-ta usovershenstvovaniya vrachey). 7.000 ekz. 10r. V per. -Bibliogr: s. 286-294.-/55-1942/p   616.853+/016.3/

Knizhnaya Letopis' No. 6, 1955

GEL'MAN, T.M.; POLESSKAYA, L.P.

Treatment of epilepsy with hexamidine. Zdrav.Belor. 5 no.7:
34-36 Jl '59.   (MIRA 12:9)

1. Belorusskiy nauchno-issledovatel'skiy institut nevrologii,
neyrokhirurgii i fizioterapii (direktor Ye.F.Kalitovskiy,
nauchnyy rukovoditel' - akademik D.A.Markov).
                    (EPILEPSY)   (PYRIMIDINE)

1. GEL'MAN, V.

2. USSR   (600)

4. Machine - Tractor Stations

7. Bashtanka Machine-Tractor Station struggles to achieve high yields. MTS No. 12 1952

9. Monthly List of Russian Accessions, Library of Congress, _____Anril_____1953, Uncl.

GEL'MAN, V.A.

USSR/ Miscellaneous - Industrial processes

Card 1/1   Pub. 104 - 10/11

Authors   : Gel'man, V. A., and Shibayeva, Z. M.

Title   : Method of liquidating waste during kilning of large-size glass objects

Periodical : Stek. i ker. 2, 29 - 30, Feb 1955

Abstract   : Announcement is made by the Ceramics and Refractories Laboratory of the Central Glass Scientific Research Institute on the development of a method for the elimination of waste during the kilning of large-size glass or ceramic objects. Some results obtained by means of the new method, are listed. Drawings; graph.

Institution: .....

Submitted: .....

ACC NR: AP6018014   (A)   SOURCE CODE: UR/0413/66/000/010/0146/0146

INVENTOR: Gel'man, V. A.; Zatsepina, N. S.

ORG: None

TITLE: A highly refractory material. Class 80, No. 182040

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 146

TOPIC TAGS: refractory compound, refractory product

ABSTRACT: This Author's Certificate introduces a highly refractory material for making heat resistant products. The material is based on artificial corundum, aluminum hydroxide and a phosphate binder. The heat resistance of finished products is increased by making the material from the following components (in wt.%): white synthetic corundum--41-47% with 0.8-1 mm grains and 32-37% with 0.03-0.05 mm grains; 9-10% aluminum hydroxide with a specific surface of 700 cm^2; 6-18% orthophosphoric acid (60% concentration).
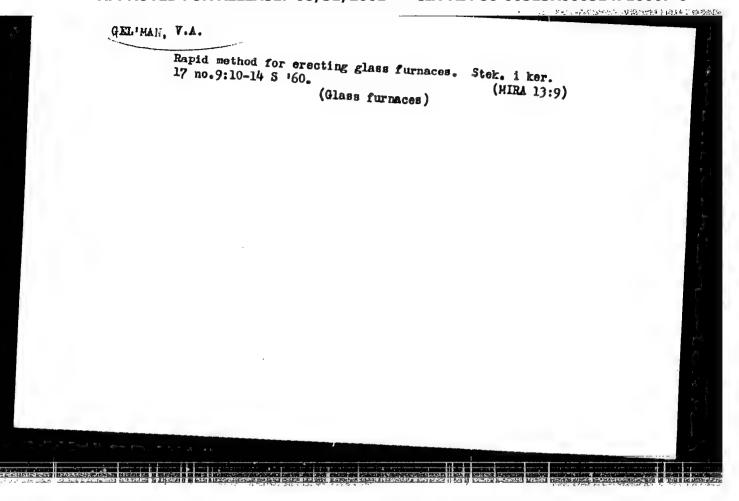
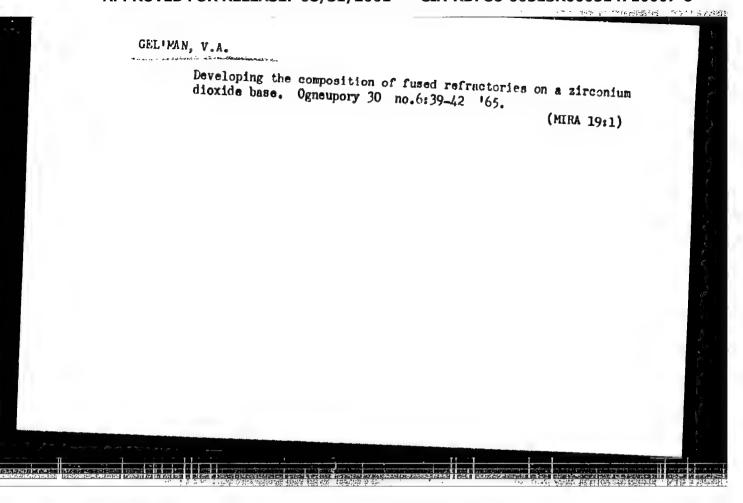SUB CODE: 11, 07/ SUBM DATE: 10Apr64

Card 1/1   UDC: 666.764.32

GEL'MAN, V.A.

Rapid method for erecting glass furnaces. Stek. i ker.
17 no.9:10-14 S '60.
                        (Glass furnaces)   (MIRA 13:9)

GEL'MAN, V.A.

Developing the composition of fused refractories on a zirconium dioxide base. Ogneupory 30 no.6:39-42 '65.

(MIRA 19:1)

17(5,8)

SOV/177-58-4-26/32

AUTHOR: Gel'man, V.B., Dental Technician

TITLE: A Complex KPN-56-type Apparatus for Manufacturing
            Metallic Crowns of the Teeth (Kompleksnyy apparat KPN-56
            dlya izgotovleniya zubnykh metallicheskikh koronok)

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1959, Nr 4, pp 88-89 (USSR)

ABSTRACT: The author suggests a complex apparatus (weight 1,500
            grams) for manufacturing metal crowns of teeth which
            is presently being tested at the Zubotekhnicheskaya
            laboratoriya stomatologicheskoy polikliniki Kiyevskogo
            voyennogo okruga (Laboratory of Dentistry at the Stoma-
            tological Polyclinic of the Kiyev Military District).
            There are 2 photographs.

Card 1/1

KUL'TEPINA, O.S.;   GEL'MAN, V.B.

Case of Niemann-Pick disease. Vop. okhr. mat. i det. 6 no. 1:90-92
Ja '61.   (MIRA 14:4)

1. Iz kafedry detskikh bolezney (zav. - prof. Ye.D. Belyayeva)
Kalininskogo meditsinskogo instituta (dir. - dotsent A.I. Kushnev)
i 2-y gorodskoy bol'nitsy (glavnyy vrach O.A. Gol'dzamid).
                         (LIPIDOSIS)

L 57015-65   EWT(j)/EWP(e)/EPA(c)-2/EWT(m)/EPF(c)/EWT(l)/EPF(n)-2/EPR/T/
EPA(w)-2/EWP(t)/EWP(b)   Pab-10/Pq-4/Pr-4/Ps-4/Pt-7/Tu-4   IJP(c)   JD/WW/JD/WH

ACCESSION NR: AF5015876   UR/0131/65/000/006/0039/0042
                                           666.1.031.2.043.1

AUTHOR: Gel'man, V. A.

TITLE: Developing the composition of fused refractories based on zirconium
dioxide

SOURCE: Ogneupory, no. 6, 1965, 39-42

TOPIC TAGS: high melting glass, zirconium dioxide, aluminosilicate glass,
baddeleyite, refractory material, arc furnace, tank furnace spalling resistance

ABSTRACT: In order to develop a refractory material resistant to high-melting
glass at temperatures exceeding 1700°C, a series of super-duty refractory
compounds in the systems ZrO_2-Al_2O_3-CaO, ZrO_2-Al_2O_3-MgO, ZrO_2-CaO, ZrO_2-MgO,
and Al_2O_3-MgO, has been investigated. The raw materials used were: technical
zirconium dioxide (97.5% ZrO_2), technical alumina (grade G-00), magnesium
oxide (92.2% Mg), and pulverized chalk (98.0% $CaCO_3$). Specimens of the material
were obtained by smelting briquetted charge in a laboratory three-phase arc

Card 1/3

L 57015-65

ACCESSION NR: AP5015876

furnace with subsequent casting of melt into graphite molds. Altogether, five two-component and five three-component compounds were investigated. Their softening points under deformation proved to be 100-150° higher than those of the two standard refractories with which they were compared. Tests for resistance to molten aluminosilicate glass were performed in crucibles at 1650 and 1750°C for 8 hr, using specimens measuring 10x10x100 mm. At 1650°C all specimens passed these tests; at 1750°C only specimens of compound No. 8 (60.1% ZrO_2, 35.2% Al_2O_3, 4.5% CaO) remained highly spalling-resistant. Microscopic analysis showed that the principal minerals present in the ingot of compound No. 8 are baddeleyite and corundum. The ingot contains not only the monoclinic but also the tetragonal varieties of zirconium dioxide, which considerably enhances the spalling resistance of this material. Therefore, in order to test this refractory compound in experimental and industrial glass-founding tank furnaces designed to operate at temperatures of more than 1700°C, the manufacturing technology for this compound should be worked out. Orig. art. has: 4 figures, 2 tables.

ASSOCIATION: none

Card 2/3

L 57015-65

ACCESSION NR: AP5015876

SUBMITTED: 00   ENCL: 00   SUB CODE: MM, MT

NO REF SOV: 000   OTHER: 000

Card 3/3

GEL'MAN, V.B.

    Problem of sudden death from cytomegaly. Vop. okh. mat. i det. 7 no.3:
83-85 Mr '62.   (MIRA 15:5)

    1. Iz kafedry sudebnoy meditsiny (zav. - dotsent A.V.Kapustin)
Kalininskogo meditsinskogo instituta.
            (VIRUS DISEASES)   (DEATH--CAUSES)

GELMAN, V.G,

BYKOV, P.B.; KHANKIN, L.D.; MAKEYEV, G.M., inzhener, retsenzent; GEL'MAN,
V.G., inzhener, redaktor; POPOLOV, Ya.M., inzhener, redaktor
'Izdatel'stva; TIKHONOV, A.Ya., tekhnicheskiy redaktor

[Reducing setup, man and down time in lathe work] Sokrashchenie
vspomogatel'nogo vremeni pri rabote na tokarnykh stankakh. Moskva,
Gos, nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 166 p.
    (Turning)   (MIRA 9:12)

GEL'MAN, V.M., kandidat ekonomicheskikh nauk; PERSHIN, P.N., akademik,
redaktor; BANNIKOV, N.I., redaktor; MUSHTAKOVA, L.P., tekhnicheskiy
redaktor

[Ways of reducing labor expenditure in agriculture] Puti snizheniia
zatrat truda v sel'skom khoziaistve. Pod red. P.N.Pershina. Moskva,
Gos. izd-vo sel'khoz. lit-ry, 1956. 221 p.   (MIRA 10:3)

1. Akademiya nauk URSR, Kiyev. Institut ekonomiki.
        (Agriculture--Economic aspects)
        (Farm management)

GAL'MAN, Vladimir Mikhaylovich

[Significance of over-all mechanization in agriculture] Znachennia kompleksnoi mekhanizatsii v sel's'komu hospodarstvi. Kyiv, Derzh. vyd-vo politychnoi lit-ry URSR, 1957. 69 p.   (MIRA 10:11)
(Agricultural machinery)

8(5)
SOY/112-59-4-7205

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, Nr 4, p 111 (USSR)

AUTHOR: Gel'man, V. M.

TITLE: Power Equipment in Socialist Agriculture

PERIODICAL: Kolgospnik Ukraini, 1957, Nr 10, pp 5-7 (Original in Ukrainian)

ABSTRACT: Increased use of power equipment in the agriculture of Ukraine is
shown in the article. Tractors were used 5.3 hp in 1940, 6.3 hp in 1950, and
8.9 hp in 1955 per 100 hectars of tilled land. There were 54,900 automobiles
used in Ukrainian agriculture in 1941, 65,900 in 1951, and 102,300 in 1956.
In 1957, the number of machine-tractor stations and other specialized machine
stations reached 1,369. Ukrainian agriculture has been electrified to a
considerable degree: 72.4 million kwh were produced in 1940 by rural
generating stations, and 455.2 million kwh in 1955. Forty rayons have been
completely electrified. All machine-tractor stations and 5,600 kolkhozes have
been electrified. In addition, 5,700 kolkhozes derive their electric energy
from machine-tractor-station plants. Great attention is paid to utilizing wind
energy.
                                                              L.G.P.

Card 1/1

GEL'MAN, V.M. [Hel'man, V.M.], kand.ekon.nauk

How the "Shliakh Illicha" Collective Farm uses its acquired machinery.
Mekh. sil'. hosp. [9] no.5:4-5 My '58.   (MIRA 11:6)
(Vasilyevka District--Tractors)

GEL'MAN, Vladimir Mikhaylovic' ; NATANZON, I.I. [Natanzon, I.Y.] kand.
tekhn.nauk, glavnyy red.

[Organization of the maintenance of tractors and agricultural
machinery on Ukrainian collective farms] Organizatsiia zberihannia
mashynno-traktornoho parku v kolhospakh Ukrainy. Kyiv, 1959. 29 p.
(Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrain-
s'koi RSR. Ser.6, no.16)   (MIRA 13:1)
    (Ukraine--Agricultural machinery--Maintenance and repair)

GEL'MAN, V.M. [Hel'man, V.M.], kand.ekon.nauk

Most important factor in increasing labor productivity
on collective farms. Mekh.sil'.hosp. 10 no.12:9-11
D '59.   (MIRA 13:3)
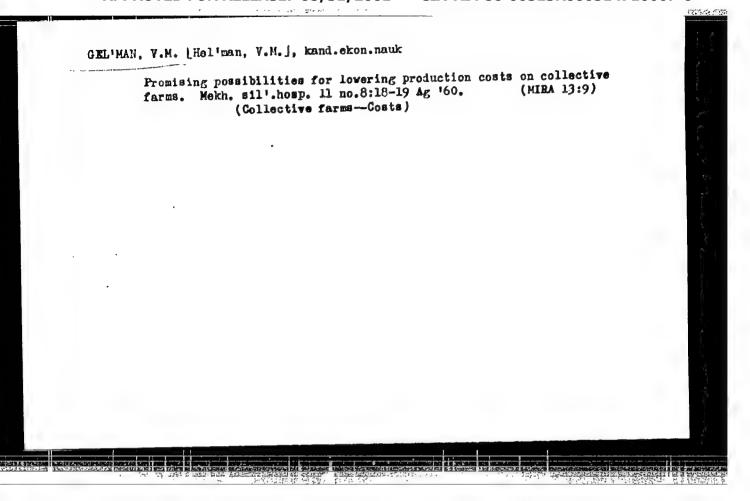   (Collective farms--Labor productivity)

GEL'MAN, V.M. [Hol'man, V.M.], kand.ekonom.nauk

Size of tractor brigades in the steppe zone of the Ukraine. Mekh.
sil'. hosp. 13 no.9:22-24 S '62. (MIRA 17:3)

GEL'MAN, V.M. [Hel'man, V.M.], kand. ekon. nauk; FTOMOV, G.S. [Ftomov, H.S.]

Problems involved in wages for machinery operators on collective farms. Visnyk AN URSR 30 no.8:28-38 Ag '59.

(MIRA 13:1)

(Farm mechanization)   (Wages)

GEL'MAN, V.M. [Hel'man, V.M.], kand.ekon.nauk

Promising possibilities for lowering production costs on collective
farms. Mekh. sil'.hosp. 11 no.8:18-19 Ag '60.   (MIRA 13:9)
                    (Collective farms—Costs)

GEL'MAN, Vladimir Mikhaylovich [Hel'man, V.M.]; FRANCHUK, P.O., red.
DAKHNO, Yu.M., tekhn.red.

[Effectiveness of the over-all mechanization of agriculture]
Efektyvnist' kompleksnoi mekhanizatsii v sil's'komu hospo-
darstvi. Kyiv, Vyd-vo Akad.nauk URSR, 1961.   84 p.

(MIRA 15:4)

(Ukraine—Farm mechanization)

GEL'MAN, V. M.[Hel'man, V. M.], kand. ekonom. nauk; STEPANCHENKO,
L. I., kand. ekonom. nauk

Forms of the organization of the work of mechanizers on
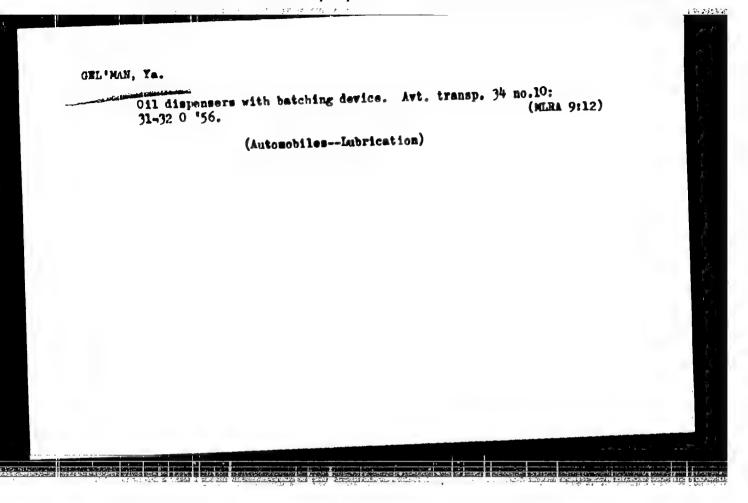collective farms. Mekh. sil'. hosp. 14 no.1:17-21 Ja '63.
(MIRA 16:4)

(Ukraine—Farm mechanization)

GEL'MAN, V.Ye.; FUKSMAN, I.Ya.

New method of controlling the calcination of bone charcoal
Sakh. prom. 32 no.11:31-32 N '58.   (MIRA 11:12)

1.TSentral'noye konstruktorskoye byuro Kiyevskogo sovnarkhoza (for
Gel'man). 2.Zhulyanskiy kostokal'nyy zavod (for Fuksman).
            (Animal charcoal)

GEL'MAN, Ya.

Oil dispensers with batching device. Avt. transp. 34 no.10:
31-32 O '56.

(MLRA 9:12)

(Automobiles--Lubrication)

GEL'MAN, Ya. G.

GEL'MAN, Ya. G.: "Investigation of the static operation of the bearing structure of the internal shell of column-type subway stations." Min Transport Machinebuilding USSR. All-Union Sci Res Inst of Transport Machinebuilding. Moscow, 1956, (Dissertation for the Degree of Candidate in Technical Sciences.)
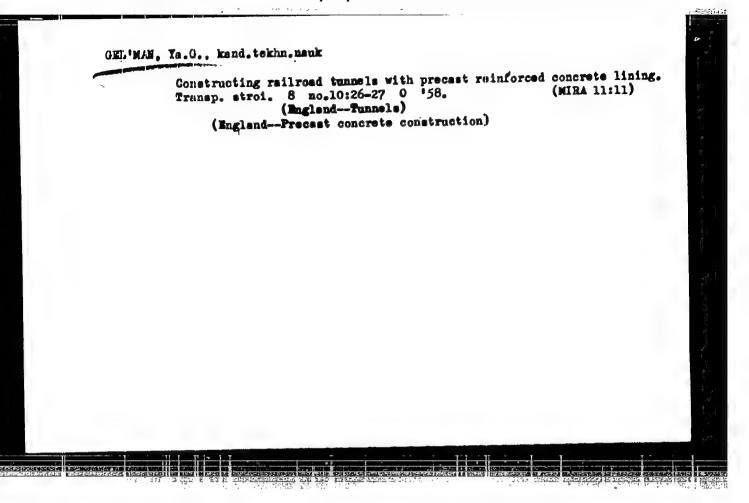
Source: Knizhnaya letopis'   No 40   1956   Moscow

GEL'MAN, Ya.O., kand.tekhn.nauk

Constructing railroad tunnels with precast reinforced concrete lining.
Transp. stroi. 8 no.10:26-27 O '58.   (MIRA 11:11)
                (England--Tunnels)
        (England--Precast concrete construction)

GEL'MAN, Ya.G.,kand.tekhn.nauk

Subsurface intersections for traffic in San Francisco and
Washington. Transp.stroi. 9 no.3:53-55 Mr '59.
(MIRA 12:4)

(San Francisco--Tunnels) (Washington, D.C.--Tunnels)

GEL'MAN, Ya.G., kand. tekhn. nauk

Prestressed wholly sectional lining of subway tunnels. Bet.
i zhel.-bet. 9 no.10:464-466 O '63.   (MIRA 16:12)

GEL'MAN, Ya.M.

Uterine rupture in 32-week pregnancy. Akush. i gin. 35 no.1:109
Ja-F '59.   (MIRA 12:2)

1. Iz rayonnoy bol'nitsy (glavnyy vrach A.G. Redkokasha) s.
Sosnovka, Rovenskoy oblasti.
                (UTERUS—RUPTURE)

GEL'MAN, Ya. M.

Use of leeches in treating inflammatory processes of the female genitalia. Akush. i gin. no.4:83-84 '62.   (MIRA 15:7)

(LEECHES)   (GENERATIVE ORGANS, FEMALE—DISEASES)

Gel'man, Ye. A.

AID P - 4051

Subject   : USSR/Power

Card 1/1   Pub. 26 - 9/33

Authors   : Gel'man, E. A. and P. D. Zubarev, Engs.

Title   : A mobile bridge at the construction of the underground
                section of the powerhouse.

Periodical   : Elek. sta., 12, 30-35, 1955

Abstract   : A detailed account of the construction of an unnamed
                power plant with the use of a mobile bridge. The
                mounting and operation of the bridge are described in
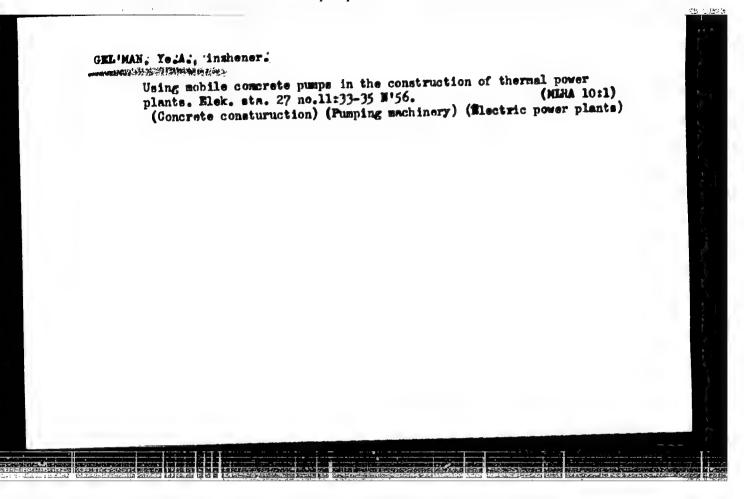   great detail. Seven diagrams.

Institution : None

Submitted   : No date

GEL'MAN, Ye.A., inzhener.

Using mobile concrete pumps in the construction of thermal power plants. Elek. sta. 27 no.11:33-35 N'56.   (MLRA 10:1)
(Concrete consturuction) (Pumping machinery) (Electric power plants)
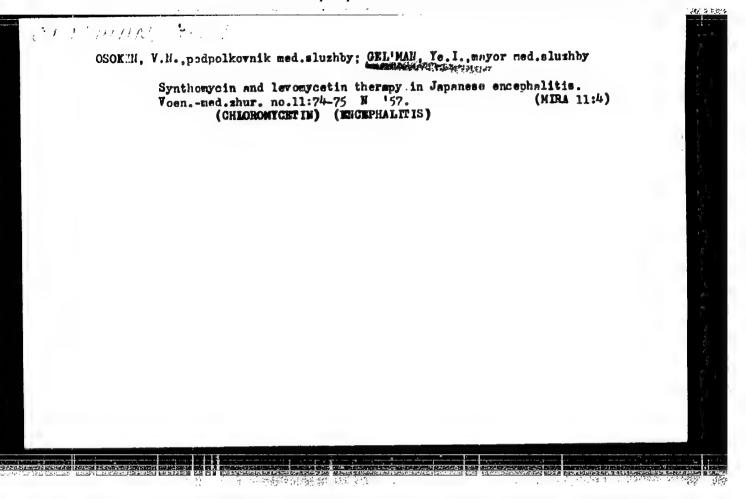
GEL'MAN, Ye.A., inzh.; DRAGUNOV, Ye.Ya., inzh.

Some problems of the organization of the construction of large
thermal electric power plants constructed by a universal plan.
Energ. stroi. no.38:12-22 '64.   (MIRA 17:10)

1. Moskovskiy filial Vsesoyuznogo instituta po proyektirovaniyu
organizatsii energeticheskogo stroitel'stva.

OSOKIN, V.N.,podpolkovnik med.sluzhby; GEL'MAN, Ye.I.,mayor med.sluzhby

Synthomycin and levomycetin therapy in Japanese encephalitis.
Voen.-med.zhur. no.11:74-75 N '57.   (MIRA 11:4)
        (CHLOROMYCETIN) (ENCEPHALITIS)

S/137/62/000/003/176/191
A160/A101

AUTHOR: Gel'man, Ye. M.

TITLE: Determination of rubidium and cesium in minerals, with the use of ionites and radioactive indicators

PERIODICAL: Referativnyy zhurnal, metallurgiya, no. 3, 1962, 2, abstract 3 K 6 ("Khim., fiz.-khim. i spektr. metody issled. rud redk. i rasseyan. elementov, Moscow, Gosgeoltekhizdat, 1961, 25 - 30)

TEXT: Determination of Rb and Cs is based on a method developed by Wells and Stevens, which makes use of different solubilities of K, Rb and Cs chlorides in alcohol saturated with gaseous HCl. In order to obviate a necessity of repeatedly extracting RbCl when separating it out of KCl, use is made of Rb radioactive isotope. In order to extract not less than one half of the total amount of Rb, it is sufficient to perform but 1 - 2 extractions. To separate Rb and Cs more completely, to the precipitating liquid (80 % alcohol saturated with $(NH_4)_2SO_4$), one adds 0,08 NH_4Cl, which increases the solubility of Cs salt to a certain extent, not increasing the solubility of Rb_2SO_4 and K_2SO_4. To simplify

Card 1/2

S/137/62/000/003/176/191
A160/A101

Determination of rubidium and ....

the mechanism of separation of K, Rb and Cs chlorides. rock is decomposed with a
mixture of HF + HCl + HClO₄. K, Rb and Cs form perchlorates difficultly soluble
in alcohol, which are then separated-out disssolving in water and converted by
means of ion exchange into chlorides. This conversion is made on ЭДЭ-10 (EDE-10)
resin in chloroform from a weak hydrochloric acid solution with a concentration
of K, Rb and Cs of ∿1 mg/ml. The thus separated-out chlorides are somewhat con-
taminated with Al, Fe and other metals, the removal of which from alkali metal
chlorides is not difficult.

N. Gertseva

[Abstraoter's note: Complete translation]

Card 2/2

37696
S/126/62/013/004/004/022
E021/E435

AUTHORS: Pavlovskaya, V.S., Gel'man, Yu.A.

TITLE: Study of the ageing of aluminium-zinc alloys by the
              method of nuclear magnetic resonance

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no.4, 1962,
              517-520

TEXT: The natural ageing of Al-Zn alloys containing 7.8, 11.2,
13.9 and 22.9 wt % Zn was studied by means of nuclear magnetic
resonance, obtaining data on deviations of the electrical field
from cubic symmetry.   The alloys, prepared from 99.99% Al and
99.96% Zn, were melted in a muffle furnace at 700°C in graphite
crucibles under a flux.   After casting into iron moulds, the
billets were homogenized at 450°C for 50 hours in evacuated
sealed flasks.   Powdered samples (53 µ) from the billets were then
sealed in an evacuated flask and heated for 1 hour at 500°C to
obtain solid solution, cooled to 250°C, held for 30 minutes and
quenched in cold water (10°C).   After drying on filter paper for
15 to 20 minutes, the powder was placed in the measuring head of
a radiospectrometer in a 1.5 cm^3 glass tube.   The first
Card 1/2

Study of the ageing of ...

S/126/62/013/004/004/022
E021/E435

derivatives of the absorption lines from the nucleus Al^{27} were recorded. The main parameters showing the kinetics of ageing are the integral intensity and the mean square width of the lines. With increase in zinc concentration, both parameters decrease showing an increase in the relative number of aluminium nuclei in distorted parts of the lattice. There are two maxima on the I-time curve which are displaced to the left with increase in zinc content, indicating an accelerated ageing with increase in zinc. When the Al - 22.9% Zn alloy was air-cooled in place of water-quenching, the maxima were displaced to the right, indicating a retardation in the ageing process. There are 2 figures.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: May 21, 1961

Card 2/2

Q-2

USSR / Farm Animals.   Cattle

Abs Jour   : Ref Zhur - Biol., No 14, 1958, No 64423

Author   : Gel'man, Z. Ya.
Inst   : Dairy Institute of Vologda
Title   : Mineral Composition of the Milk of High-Producing Crosses of
             the Black-Spotted Cattle of the Vologda Oblast'

Orig Pub   : Tr. Vologdsk. molochn. in-ta, 1956, vyp. 14, 105-119

Abstract   : The mineral composition of milk (MCM) in 10 cows, cross-
             breeds of East Friesians and Kholmogory of the 2nd generation,
             with yearly milk yield of 6,000-8,000 kg. and live weight
             of 500-600 kg., was studied. The animals were fed complete
             rations. As mineral supplementation, besides common salt,
             the cows were given chalk and bone meal during different
             periods of experimentation. Considerable individual varia-
             tions of MCM (the greatest range of variations was that in
             relation to K, 28.7%, the least in regard to P, 13.8%), as

Card 1/2

15

USSR / Farm Animals. Cattle.   Q-2

Abs Jour   : Ref Zhur - Biol., No 14, 1958, No 64423

well as variations according to the months of lactation,
were determined. As to the content of Ca, P, Mg and Na, the
MCM of the crossbreeds under study was close to the MCM of
the Yaroslavl' cattle. With increase of the Milk yield,
the content of Ca and P in the Milk augmented. A tendency
towards a somewhat higher content of Ca and Mg in the
summer milk was noted.

Card 2/2

GEL'MAN-VINOGRADOV, K.B.; KUZINA, A.A., dots., red.; PIROGOV, A.I.,
       tekhn. red.

   [Microfilming documentary materials and the organization of
   work with microfilms in Soviet archives] Mikrofotokopirovanie
   dokumental'nykh materialov i organizatsiia raboty s mikrofoto-
   kopiiami v arkhivakh SSSR. Pod red. A.A.Kuzina. Moskva, M-vo
   vysshego i srednego spetsial'nogo obrazovaniia RSFSR, 1961.   183 p.
                                                       (MIRA 15:3)

                        (Microphotography)

GEL'MANOV, K.; KHURIN, Mikhail (g.Lipetsk); VOROTNIKOV, A.

Good luck!. Tekh.mol. 28 no.6:1-3 '60.   (MIRA 13:7)

1. Glavnyy inzhener Yeletskogo elementnogo zavoda (for Gel'manov). 2. Pervyy sekretar' Lipetskogo obkoma komsomola (for Vorotnikov).
(Efficiency, Industrial)

GEL'MANOVA, S.Z.; MENZHINSKIY, Ye.A.; BATASOV, S.A.

[Economic conditions of capitalist countries; survey of
economic trends in 1962. and the beginning of 1963] Eko-
nomicheskoe polozhenie kapitalisticheskikh stran; kon'-
iutkurnyi obzor za 1962 g. i nachalo 1963 g. Moskva,
Izd-vo "Pravda," 1963. 157 p.   (MIRA 16:9)
        (Economic history)

GEL'MAN-VINOGRADOV, K.B.

History of the processing of punched cards by manual sorting.
NTI no.9:24-25 '64.   (MIRA 18:2)

GEL'MER, V.O., kand.tekhn. nauk

How to determine the composition and adhesiveness of bitumen and tar according to nomograms. Avt. dor. 21 no. 7:22-24 Jl '58.

(MIRA 11:8)

(Bitumen)
(Tar)

VOLKOV, Mikhail Ivanovich, prof.; GEL'MER, Vladimir Oskarovich, kand. tekhn.nauk; ZASHCHEPIN, Aleksey Nikitich, kand.tekhn.nauk; LYSIKHINA, Aleksandra Ivanovna, kand.tekhn.nauk; MIKHAYLOV, Valentin Vasil'yevich, kand.tekhn.nauk; PANTELEYEV, Fedor Nikolayevich, kand.tekhn.nauk; SAMOYLOV, Mikhail Pavlovich, inzh.; ORNATSKIY, N.V., prof., doktor tekhn.nauk, glavnyy red.; MOROZOV, V.I., red.; MAL'KOVA, N.V., tekhn.red.

[Handbook for road engineers; road materials] Spravochnik inzhenera-dorozhnika; dorozhno-stroitel'nye materialy. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1959. 308 p.   (MIRA 12:8)
(Road materials)

VOLKOV, Mikhail Ivanovich, prof.; GEL'MER, Vladimir Oskarovich, dotsent,
kand.tekhn.nauk; ZASOBIN, Luka Fedorovich, dotsent, kand.tekhn.nauk,
[deceased]; PANTELEYEV, Fedor Nikolayevich, dotsent, kand.tekhn.
nauk; YEGOZOV, V.P., red.; MAL'KOVA, N.V., tekhn.red.

[Road materials] Dorozhno-stroitel'nye materialy. Izd.3., perer.
Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transporta i
shosseinykh dorog RSFSR, 1960. 543 p.   (MIRA 13:7)
                    (Road materials)

GIL'mgol'ts, N. F.

"Certain Considerations Concerning the Classification of Clouds"
Trudy Kazakhsk. n.-i. Gidromet. in-ta, No 2, 1954, 32-39

The international xx atlas of clouds (published in 1929) possesses serious deficiencies relative to the systematics of clouds, nomenclature of shapes, and varieties and sufficient orderliness of the classification itself. The author proposes the following scheme of classification: Families -- (1) clouds of stable air masses, mainly St and Sc; (2) clouds of unstable air masses, mainly Cy, intramass Cb, Ac xxxxx,cast, clouds associated with Cb etc.; (3) frontal clouds, certain forms of Ci, Cs, As, Ns, frontal Cb, Ac, Sc, etc.; (4) clouds of degraduating processes, certain Ci, Cc, Ac lent, Ac virga, etc. System - genus, species, variety (this is to replace the system shape, variety , special formations). Adding to the 10 existing shapes an 11th shape Fn as an independently existing one, the author proposes principal cloud shapes: Ci, Cc, Ac, Sc Cs, As, Ns, Fn, St, Cu, Cb. (RZhGeol, No 9, 1955)

SO: Sum-No 845, 7 Mar 56

GEL'MGOL'TS, N. F.

"Improvement and Acceleration of the Processing of Aerological Observations".
Trudy Kazakhsk n.-i. gidromet. in-ta, No 2, pp 52-58, 1954.

The considerable errors arising during calculations of pressure at
great heights according to data of vertical sounding by existing graphi-
cal methods prompt the author to propose and analytical method. Employ-
ing a barmetric formula he derives a formula for the interpolation
$\Delta (\log p) = (\log p / \Delta H) \cdot \Delta H$, where $\Delta \log p$ is the difference of the lo-
garithms of two known pressures p_1 and p_2, ΔH is the difference of
heights for these pressures, (log P) is the difference between log
p_1 and the logrithm of the desired pressure, and ΔH is the difference
between the sought-for height and the height with pressure P_1. The
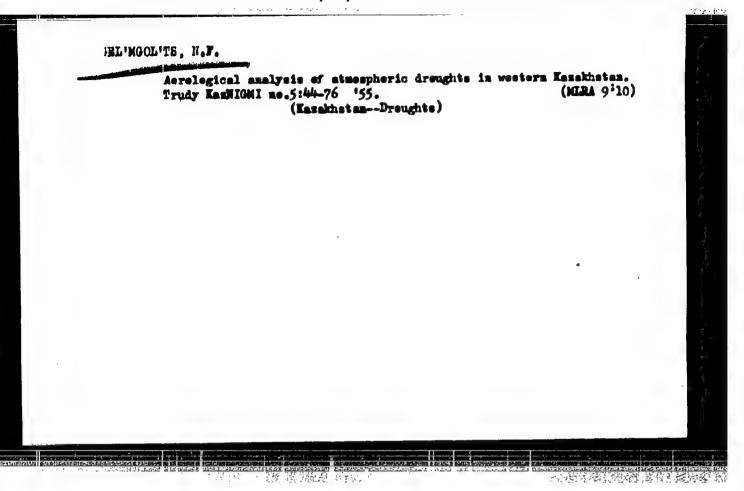formula for wxtrapolation possesses a simialr form. (RZhGeol, No 10, 1955)

SO: Sum No 884, 9 Apr 1956

_____, _. _.

"Atmospheric Fronts and Precipitation in the Southern Part of Kazakhstan"
Vestn. AN Kazakh SSR, No 6, 66-72, 1954

The author considers the connection between the atmospheric fronts
and the precipitation in Kazakhstan according to data of meteorological
and aerological observations for 1952, and established the quantity of
precipitation peculiar to various fronts at different times of the
year. Warm and cold fronts give precipitation (above 0.5 mm) only in
40% of the cases. The greatest amount of precipitation (around 5% of
all sums of precipitation) falls during the passage of cold fronts; the
least, during passage of warm fronts and occlusion fronts. (RzhGeol,
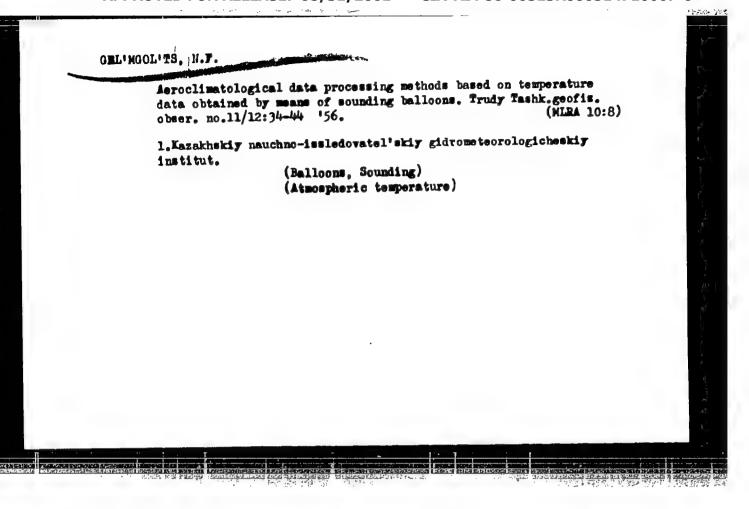No 6, 1954)

SO: Sum. 492, 12 May 55

EL'MGOL'TS, N.Y.

Aerological analysis of atmospheric droughts in western Kazakhstan.
Trudy KazNIGMI no.5:44-76 '55.   (MIRA 9:10)
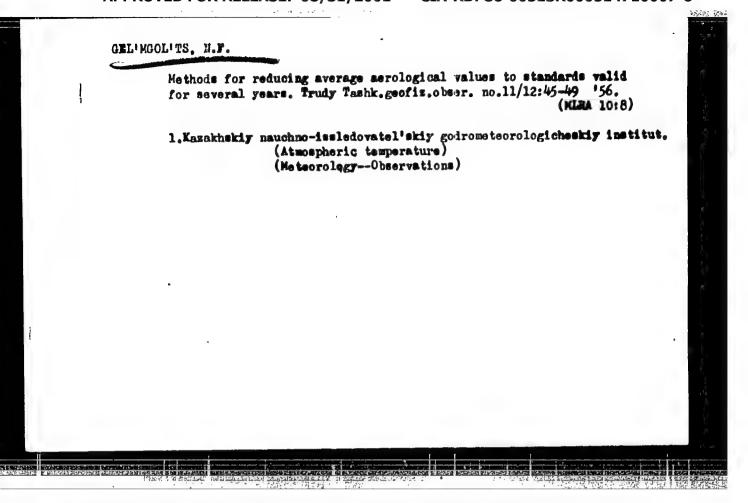   (Kazakhstan--Droughts)

GEL'MGOL'TS, N.F.

Requirements for series of acrological observations to obtain
average values of given accuracy. Trudy Tashk.geofiz.obser.
no.11/12:25-33 '56.   (MLRA 10:8)

1.Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy
institut.
                    (Meteorology--Observations)

GEL'MGOL'TS, N.F.

Aeroclimatological data processing methods based on temperature
data obtained by means of sounding balloons. Trudy Tashk.geofis.
obser. no.11/12:34-44 '56.   (MLRA 10:8)

1.Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy
institut.
                    (Balloons, Sounding)
                    (Atmospheric temperature)

GEL'MGOL'TS, N.F.

Methods for reducing average aerological values to standards valid
for several years. Trudy Tashk.geofiz.obser. no.11/12:45-49 '56.
(MLRA 10:8)

1.Kazakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut.
            (Atmospheric temperature)
            (Meteorology--Observations)

UTIMAGANBETOV, M.M., kand.geogr.nauk; BERLYAND, T.G., kand.geogr.nauk;
BEZVERKHNIY, Sh.A., kand.fiz.-matem.nauk; BAYDAL, M.Kh., kand.
geogr.nauk; KUZNETSOV, A.T., kand.geogr.nauk; CHUBUKOV, L.A.,
doktor geogr.nauk; SHVYREVA, Yu.G., mladshiy nauchnyy storudnik;
UTESHEV, A.S., kand.geogr.nauk; GOL'TSBERG, I.A., doktor geogr.
nauk; KLYKOVA, Z.D., starshiy nauchnyy sotrudnik; MEN'SHIKOVA,
Ye.A., mladshiy nauchnyy sotrudnik; GEL'MGOL'TS, N.F., starshiy
nauchnyy sotrudnik; PROKHOROV, I.I., starshiy nauchnyy sotrudnik;
TKACHENKO, M.S., mladshiy nauchnyy sotrudnik; ZHDANOVA, L.P.,
red.; BRAYNINA, M.I., tekhn.red.

[Climate of Kazakhstan] Klimat Kazakhstana. Pod red. A.S.Ute-
sheva. Leningrad, Gidrometeor.izd-vo, 1959. 366 p.
                                    (MIRA 13:5)
1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeoro-
logicheskoy sluzhby. 2. Kazakhskiy pedagogicheskiy institut
(KazPI) (for Utimagambetov). 3. Glavnaya geofizicheskaya observa-
toriya im. A.I.Voyeykova (GGO) (for Berlyand, Gol'tsberg). 4. Ka-
zakhskiy nauchno-issledovatel'skiy gidrometeorologicheskiy insti-
tut KazNIGMI) (for Bezverkhniy, Baydal, Kuznetsov, Uteshev, Kly-
kova, Men'shikova, Gel'mgol'ts, Prokhorov, Tkachenko). 5. Insti-
tut geografii Akademii nauk SSSR (IG AN SSSR) for Shvyreva).
             (Kazakhstan--Climate)

S/169/60/000/011/012/016
A005/A001

AUTHOR: Gel'mgol'ts, N.F.

TITLE: The Evolution Conditions of the Atmospheric Turbulence in the Foot
            Hill Zone of South-East Kazakhstan

PERIODICAL: Tr. Kazakhsk. n-i. gidrometeorol. in-ta, 1959, No. 11, pp. 152-161

TEXT: The processing results are presented of expedition flights on the
route Alma-Ata - Frunze - Dzhambul - Chikment in the time from March 20 to April
11, 1956. The flights were carried out in the main at steady weather. The aerolog-
ical data were recorded according to the observation data from theodolite locators
(3 points along the route) and sounding balloons (also at 3 points). The aircraft
load factors recorded by an accelerograph served as indicator of bumpy air. The
analysis performed showed that the bumpy air intensity decreases with the altitude
up to the 5 - 6-km-level, but the tendency to increase is stated at higher alti-
tudes. (The flights were performed up to the altitude of 7 km). The intensity
distribution of bumpy air along the route and the diurnal course are presented for

Card 1/2
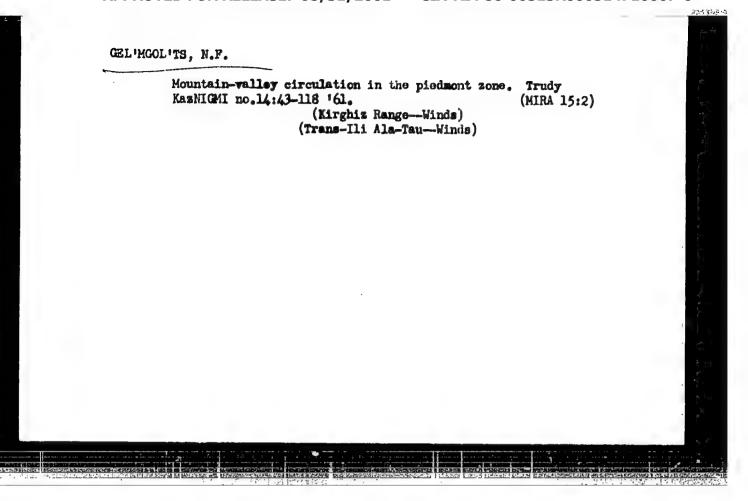
S/169/60/000/011/012/016
A005/A001

The Evolution Conditions of the Atmospheric Turbulence in the Foot Hill Zone of
South-East Kazakhstan

the stations at Alma-Ata and Frunze. No dependence of bumpy air on the magnitudes
of speed and wind shift was practically detected; more closed connections exist
with thermal factors; the vertical temperature gradients, the ground temperature
(only in the lower 2-km-layer), and the evolution degree of the convection cloudi-
ness. The absence of a closed connection with the dynamical factor is explainable
in the author's opinion by the weakness of winds in the southern Kazakhstan.
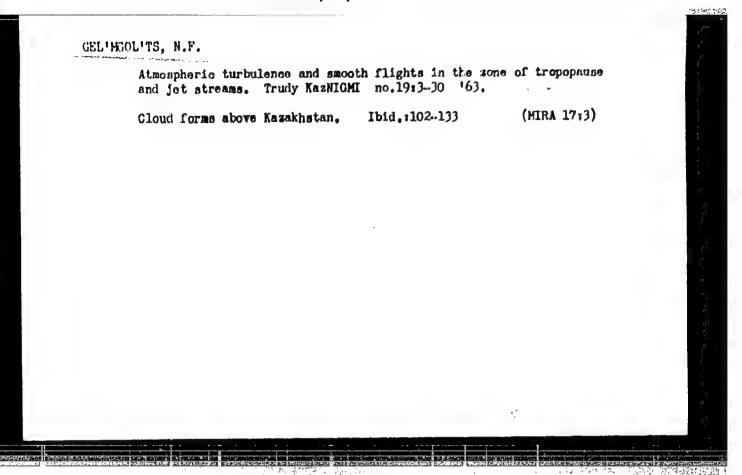
A.S. Dubov

Translator's note: This is the full translation of the original Russian ab-
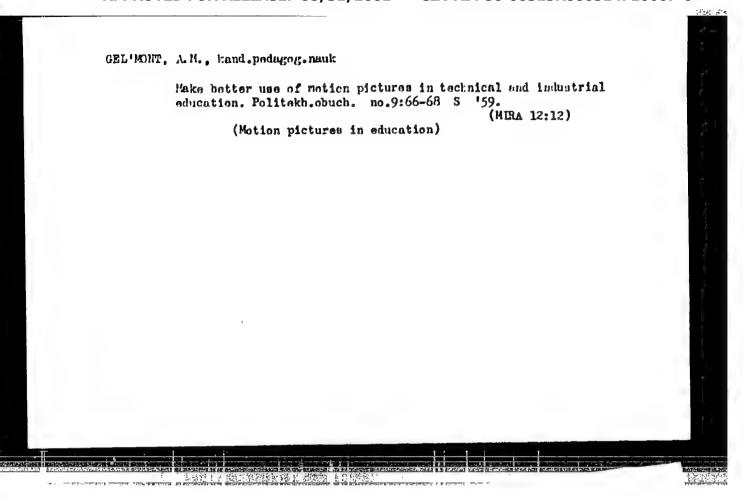stract.

Card 2/2

GEL'MGOL'TS, N.F.

Mountain-valley circulation in the piedmont zone. Trudy
KazNIGMI no.14:43-118 '61.   (MIRA 15:2)
                    (Kirghiz Range—Winds)
                    (Trans-Ili Ala-Tau—Winds)

GEL'MGOL'TS, Nikolay Fedorovich; KOTIKOVSKAYA, A.B., red.;
        NIKOLAYEVA, G.S., tekhn. red.

        [Mountain and valley circulation on the northern slopes
        of the Tien Shan] Gorno-dolinnaia tsirkuliatsiia severnykh
        sklonov Tian'-Shania. Leningrad, Gidrometeoizdat, 1963.
        328 p.   (MIRA 17:1)

GEL'MGOL'TS, N.F.

Atmospheric turbulence and smooth flights in the zone of tropopause and jet streams. Trudy KazNIGMI no.19:3-30 '63.

Cloud forms above Kazakhstan.   Ibid.:102-133   (MIRA 17:3)

GEL'MONT, A.M., kand.pedagog.nauk

Make better use of motion pictures in technical and industrial education. Politekh.obuch.   no.9:66-68 S '59.
(MIRA 12:12)

(Motion pictures in education)

L 6821-65
EWT(l)/EWG(k)/T   Pu-6   IJP(c)/ASD(a)-5/AFWL/ESD(ge)/ESD(t)/RAEM(t)   AT
s/0181/64/006/009/2856/2857

57
56

ACCESSION NR: AP4044966

AUTHORS: Gurevich, L. E.; Gel'mont, B. L.

TITLE: Transverse galvanomagnetic waves and their detection by means of resonance phenomena

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2856-2857

TOPIC TAGS: galvanomagnetic wave, resonance, semiconductor, semi-metal, carrier density

ABSTRACT: Referring to the observation of the oscillatory galvano-magnetic effect in metallic sodium by R. Bowers, C. Legendy, and F. Rose (Phys. Rev. Letters v. 7, No. 9, 339, 1961), the authors calcu-late from their data the impedance of the primary circuit of their test setup as a function of the frequency, and show that in addition to the maximum observed by Bowers et al., there is also a frequency corresponding to a minimum, at which the impedance changes from

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ACCESSION NR: AP4044966

1

capacitive to inductive, and which was not taken into account at all. It is further pointed out that the galvanomagnetic effect frequency can be observed not only in metals but also in semicon-ductors and semimetals having a single type of carrier, but owing to the lower carrier density the frequencies will be much higher. Orig. art. has: 5 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute, AN SSSR)

SUBMITTED: 13Apr64

SUB CODE: SS, EM

NR REF SOV: 002

ENCL: 00

OTHER: 001

Card   2/2

L 15059-65   EWP(h)/EWT(1)/EWG(k)/EPA(sp)-2/EWG(v)/EWA(d)/EPR/EPA(w)-2/EEC(t)/
T-2/EEC(b)-2/EWA(m)-2   Pj-1/Pe-5/Po-4/Pa-4/P1-4/Pz-4/Pab-10/Pae-2   LIP(c)/ESD/
SSD(b)/AEDC(a)/SSD/ASD(a)-5/ASD(f)-2/AFWL/ASD(p)-3/AFETR/RAEM(a)/RAEM(c)/ESD(gs)/
ESD(t)   AT/GW
ACCESSION NR: AP4045270   S/0057/64/034/009/1597/1604

AUTHOR: Gurevich, I.E.; Gol'mont, B.L.

TITLE: Contribution to the theory of thermomagnetohydrodynamic waves in a weakly
nonuniform plasma

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.9, 1964, 1597-1604

TOPIC TAGS: nonuniform plasma, weakly ionized plasma, wave propagation, magnetohyd-
rodynamics, star

ABSTRACT: The authors have previously discussed the propagation of waves in a ful-
ly ionized plasma in a uniform magnetic field in the presence of small temperature
and density gradients (ZhETF 44,848,1963; 46,884,1964). In the present paper they
extend this discussion to the case of a weakly ionized plasma. The calculations are
based on the magnetohydrodynamic equations of motion of a viscous gas, with terms
in the expressions for the electric field and the heat flux to take account of the
thermomagnetic current. The linearized equations for a harmonic perturbation were
derived and the corresponding dispersion equation is written. In the derivation of
the dispersion equation it was assumed that the period of the oscillations is long

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L 15059-65

ACCESSICN NR: AP4045270

compared with the electron mean free time, that the wavelength is short compared with the length characterizing the nonuniformity of the plasma, and that the magnetic pressure is small compared with the kinetic pressure. The solutions of the dispersion equation are discussed in detail, and conditions are derived for the stability of the different types of wave. It is found that in passing from a strongly ionized to a weakly ionized plasma the propagation direction of the thermomagnetic waves changes, and there is a region from which the waves are reflected. This situation occurs in stars, where the outer region is weakly ionized and the inner region is completely ionized. Both Alfven waves and thermomagnetic waves are found to be linearly polarized when the conditions for their stability are met, and to be elliptically polarized when they are unstable. The instability of the thermomagnetic waves in a strong magnetic field is discussed in the drift approximation for the case in which the temperature gradient is parallel to the applied magnetic field. The dispersion equation thus found is consistent with that obtained in the magnetohydrodynamic approximation. The drift theory shows that the instability of a plasma in a strong magnetic field in the presence of a temperature gradient is due to drift of particles occasioned by an inertial force acting on the ions. Orig.art. has: 61 formulas.

2/3

L 15059-65
ACCESSION NR: AP4045270   O

ASSOCIATION: Fiziko-tekhnicheskiy institut im.A.F.Ioffe AN SSSR, Leningrad (Physi-
co-technical Institute, AN SSSR)

SUBMITTED: 02Dec63   ENCL: OO

SUB CODE: ME   NR REF SOV: 005   OTHER: 001

3/3

ACCESSION NR: AP4025921   S/0056/64/046/003/0884/0901

AUTHOR: Gurevich, L. E.; Gel'mont, B. L.

TITLE: Hydrothermomagnetic waves in a weakly inhomogeneous plasma

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 884-901

TOPIC TAGS: plasma, plasma stability, global instability, local instability, hydrothermomagnetic wave, plasma temperature gradient, plasma density gradient, plasma dielectric constant, electron Larmor frequency, electron relaxation time, convective instability, absolute instability, poloidal field, totoidal field

ABSTRACT: Local instability, characterized by development of local fluctuations and considered by Rudakov and Sagedeyev (Yaderny*y sinetz, Appedix 2, 1952) for the case of a collisionless plasma, is considered in the case of hydrothermal magnetic waves in a weakly inhomogeneous plasma with a small temperature or density gradient or a constant electric field (the case of nonzero temperature gradient and a uniform weak magnetic field was considered by the author earlier in ZhETF v. 44, 548, 1963). The general equations obtained are rather complicated, and consequently the relation between this type of instability and the

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ACCESSION NR: AP4025921

instability of the system as a whole (global instability) is considered for the simplest case of a system with a dielectric constant that varies in one direction only and is nonvanishing in the entire region under consideration. It is shown that the appearance of a positive imaginary frequency component denotes the transition of the system from local to global instability. The character of the instability is examined for several values of $\Omega\tau$(Ω — electron Larmor frequency and τ — electron relaxation time). When $\Omega\tau \ll 1$ the instability is convective, when $\Omega\tau > 1$ it is absolute. The growth rate of the instability is shown to be a maximum when the wave vector, the magnetic field vector, and the temperature gradient vector are parallel. The instability of hydrothermomagnetic waves in a weak magnetic field and in a strong magnetic field is also analyzed and the case when radiative thermal conductivity predominates is examined. It is shown that the presence of instability in an external poloidal field may give rise to a toroidal field and vice versa. This mechanism may be of significance in the creation of the magnetic field of celestial bodies. Orig. art. has: 65 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR (Physico-technical Institute AN SSSR)

SUBMITTED: 12Jul63   DATE ACQ: 16Apr64   ENCL: 00

Card   2/3

L 21829-65   EWT(1)/EWT(m)/EEC(t)/EWP(t)/EWP(b)   Peb   IJP(c)   JD

ACCESSION NR: AP5000336   S/0056/54/047/005/1806/1813

AUTHOR: Gurevich, L. E.; Gel'mont, B. L.

TITLE: Thermomagnetic waves in a solid body

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47,
no. 5, 1964, 1806-1813

TOPIC TAGS: thermomagnetic wave, thermomagnetism, thermal emf, bismuth,
copper

ABSTRACT: It is demonstrated that at sufficiently low temperatures
in a number of metals and semi-metals thermomagnetic waves can be
detected which are similar to those discovered earlier by one of the
authors in a nonhomogeneous plasma with a temperature gradient(L. E.
Gurevich, ZhETF, 44, 548, 1963).   In the case of Bi and Cu, the waves
appear at temperatures of the order of 20—30K and lower.   Similarly,
as was observed in a plasma, these waves in solids can show an
increasing amplitude.   In a weak magnetic field, when the Larmor
frequency of electrons is much smaller than the frequency of collisions,

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L 21829-65

ACCESSION NR: AP5000336

the instability is convective, while in a strong field it becomes
absolute. In the case of one-sign carriers, the increase of the
thermal emf resulting, for example, from the phonon-drag of electrons
or from peculiarities in electron scattering, can change substantially
the critical temperature gradient and the critical magnetic field,
as well as the oscillation increment in the presence of the instability.
If the number of carriers of both signs is equal, the thermal emf
along with the oscillation increment can, in a strong magnetic field,
increase markedly. In such a field, when the temperature is close to
zero, the thermomagnetic waves turn into waves with quadratic spectra.
Orig. art. has: 27 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe (Physical-
Technical Institute)

SUBMITTED: 24Apr64   ENCL: 00   SUB CODE: ME, EM

NO REF SOV: 007   OTHER: 002   ATD PRESS: 3166

Card 2/2

L 3521-65   EPA(s)-2/EWT(1)   Pt-10   IJP(c)   GG

ACCESSION NR: AP5005869   8/0181/65/007/003/0697/0706

AUTHOR: Gurevich, L. E.; Gel'mont, B. L.

TITLE: Ferromagnetic waves in solids and methods for their experimental observa-
tion

SOURCE: Fizika tverdogo tela, v. 7, no. 3, 1965, 697-706

TOPIC TAGS: thermomagnetic wave, temperature gradient, convective instability,
absolute instability, impedance oscillation

ABSTRACT: The article deals with a new type of wave that can propagate in a medium
in which a temperature gradient exists, a wave the authors investigated earlier and
called thermomagnetic (ZhETF v. 44, 548, 1963 and v. 47, 1806, 1964). If such a
wave is made to propagate in the inductance-coil core in which the temperature
gradient is perpendicular to the coil axis, then the impedance of the coil can
change noticeably, depending on the type of instability (convective or absolute),
and it is shown that this phenomenon can be used to observe experimentally the pre-
sence of thermomagnetic waves. The active component of the coil impedance oscil-
lates as a function of the frequency, while the reactive component reverses sign

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L 38521-65
ACCESSION NR: AP5006869

under certain conditions. In the presence of a magnetic field parallel to the temperature gradient, the active resistance of the coil becomes negative in the presence of convective instability, and oscillations with frequency that depend on the load resistance can be produced in the circuit. In the region of absolute instability, the resultant oscillations are independent of the load. In that case the oscillation frequencies depend on the magnetic field intensity and on the temperature gradient. In the transition region between the convective and absolute instabilities, both waves may exist simultaneously. Orig. art. has: 1 figure and 31 formulas.   [02]

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad
(Physicotechnical Institute, AN SSSR)

SUBMITTED: 25Jun64   ENCL: 00   SUB CODE: EM, ME

NO REF SOV: 003   OTHER: 000   ATD PRESS: 3226

Card 2/2

GUREVICH, L.E., prof. (Leningrad); GEL'MONT, B.L. (Leningrad)

Thermomagnetic waves. Priroda 54 no.2:77-78 F '65.   (MIRA 18:10)

L 45097-66   EWT(1)   IJP(c)
ACC NR: AP6024879   SOURCE CODE: UR/0056/66/051/001/0183/0193

AUTHOR: Gurevich, L. E.; Gel'mont, B. L.

ORG: Physicotechnical Institute im. A. F. Ioffe, Academy of Sciences, SSSR (Fiziko-tekhnicheskiy institut Akademii nauk SSSR)

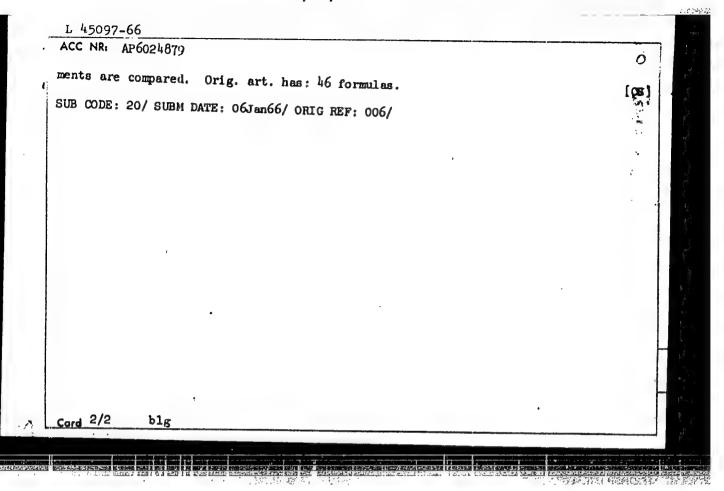TITLE: Nonlinear theory of thermomagnetic waves

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 183-193

TOPIC TAGS: noncollisional plasma, plasma instability, semimetal, thermomagnetic wave, NONLINEAR THEORY, TRAVELING WAVE, STANDING WAVE

ABSTRACT: The nature of thermomagnetic waves and their amplification in the presence of instability are qualitatively described. Two possible experiments in which the waves may be detected are considered. In one of them the thermomagnetic waves are traveling waves and in the other, standing waves. An exact solution of the nonlinear equation for the stationary state is given for the first case. The conditions for realization of the first case are investigated and are found to be identical with the condition for the soft excitation regime. The kinetics of the development of instability, conditions for soft and hard excitation, and the stationary state for a small excess of the temperature gradient with respect to its critical value are investigated for the second case. The conditions for feasibility of the two experi-

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L 45097-66

ACC NR: AP6024879

ments are compared. Orig. art. has: 46 formulas.

SUB CODE: 20/ SUBM DATE: 06Jan66/ ORIG REF: 006/

Card 2/2 blg

Gel Mont Z. Ya.

USSR/Electronics - Piezoelectric Filters   FD-2226

Card 1/1   Pub 90-6/12

Author   :   *Velikin, Ya. I., *Gel'mont, Z. Ya., *Zelyakh, E. V.

Title   :   High-pass piezoelectric filter

Periodical :   Radiotekhnika, 10, 41-49, Mar 1955

Abstract   :   Theory and methods of calculation of a certain type of high-pass piezo-
electric filter are presented in this article. Analysis of the filter
circuit, determination of the characteristic parameters of the filter,
derivation of formulas for calculation of resonant frequencies and operat-
ing attenuations are explained in detail. The calculated values of the
high-pass piezoelectric filter characteristics were checked experimentally,
and were found to be in good agreement. Two USSR references cited. For-
mulas; graphs.

Institution: *Active members of the All-Union Scientific and Technical Society of Radio
Engineering and Electric Communications imeni A. S. Popov, Moscow
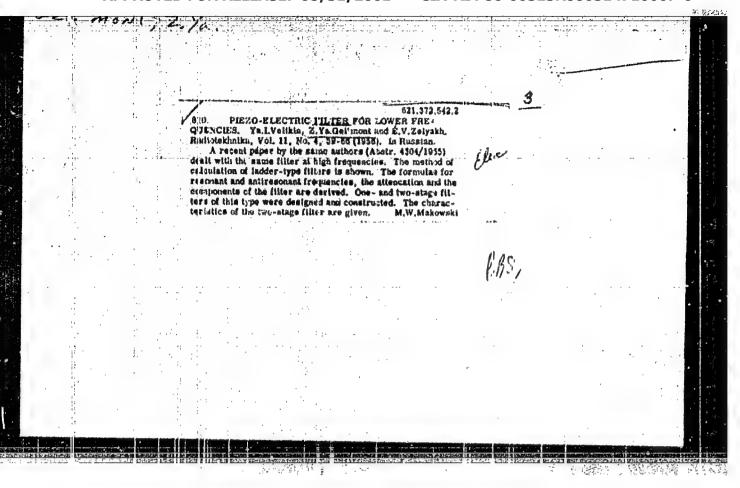
Submitted :   22 Apr 1954

GELMONT Z. Ya.
GLE'MONT, Z. YA.

Class $21a^4$, 22_{02}, No. 102860. Ya. I. Velikin, Z. Ya. Gel'mont and E. V. Zelyakh. Electric Band-Elimination Filter.

To reduce distortion of the transmitted signal it is suggested that extension arms, having characteristic resistances approximately equal to the nominal resistance of the filters, be connected at the input and output of series-connected filters of low and high frequencies formed by the elimination filter.

To widen the range of filter-element values by way of utilizing LF and HF filters with dissimilar nominal resistances, it is suggested that extensions be used with the same characteristic resistances at parallel connection and at the filters of low and high frequencies, approximately equal to the nominal resistance of the corresponding filter.

Authors' Certificates, Elektrosvyaz' No. 9, 1956.

621.372.542.2

810.   PIEZO-ELECTRIC FILTER FOR LOWER FRE-
QUENCIES. Ya.I.Velikin, Z.Ya.Gel'mont and E.V.Zelyakh.
Radiotekhnika, Vol. 11, No. 4, 59-66 (1956). In Russian.
    A recent paper by the same authors (Abstr. 4304/1955)
dealt with the same filter at high frequencies. The method of
calculation of ladder-type filters is shown. The formulae for
resonant and antiresonant frequencies, the attenuation and the
components of the filter are derived. One- and two-stage fil-
ters of this type were designed and constructed. The charac-
teristics of the two-stage filter are given.   M.W.Makowski

GEL'MONT, Z.Ya.

Crystal suppression filter with several excluding bands. Vest.
sviazi 16 no.3:6-8 Mr '56.   (MIRA 9:7)

1.Starshiy inzhener Nauchno-issledovatel'skogo instituta gorod-
skoy sel'skoy telefonnoy svyazi.
                  (Radio filters)

GROMONT, Z. Ya.

"Narrow-band Quartz Filters for the 1 to 10 MC Range,"(New Works in the Field of Wire Communication; Collection of Information) Moscow, Svyaz'izdat [1957] 85 p.

Abst.: NIITS has developed narrow-band quartz filters for the 1 to 10 mc range for cable multiplexing. These filters are needed for separating the currents of the control frequencies which actuate the automatic level control, and the currents of the group converter carrier frequencies. Formulas are given for designing the filter elements, the adapters, and for calculating circuit parameters. This method of designing filters has been tested experimentally.

SOV/111-58-3-11/29

AUTHOR: Gel'mont, Z.Ya., Senior Engineer of NIITS

TITLE: A Four-Electrode Piezoelectric Resonator for the Frequency
               Range of 250-600 Kilocycles (Chetyrëkhelektrodnyy p'yezo-
               elektricheskiy rezonator dlya diapazona chastot 250-600
               kgts)

PERIODICAL: Vestnik svyazi, 1958, Nr 3, p 12   (USSR)

ABSTRACT: The author discusses a circuit for a four-electrode resonator
               with oscillations in the second harmonic, to be used in fil-
               ters. The application of this circuit reduces by two times
               the number of resonators in quartz filters serving for se-
               parating group carrier frequencies in the high-frequency
               apparatus "V12". There are five circuit diagrams, one photo
               and one graph.

ASSOCIATION: NIITS

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AUTHOR: Gel'mont, Z.Ya.————   SOV/106-58-6-10/13

TITLE: An Unbalanced Low-frequency Piezoelectric Filter
          (P'yezoelektricheskiy fil'tr nizhnikh chastot po
          neuravnoveshennoy skheme)

PERIODICAL: Elektrosvyaz', 1958, Nr 6, pp 67 - 74 (USSR)

ABSTRACT: The filter circuit, which comprises a **piezo**electric
          resonator, three inductance coils and five capacitors, is
          shown in Figure 1. Figure 2 shows the equivalent X-circuit.
          Graphs of the impedances of the arms of the equivalent
          X-circuit are shown in Figure 3a. Using the denotations given
          in Figure 2 and Figure 3a, the impedances of the filter areas
          are expressed by Eqs.(1) to (3).
          The characteristic transmission constant g_c is determined
          from the formula:

$$\operatorname{th}\frac{g_c}{2}=\sqrt{\frac{z_1}{z_2}}=\frac{jp}{\sqrt{\frac{f_b^2}{f^2}-1}}\cdot\frac{f_2^2-f^2}{f_1^2-f^2}\ .$$

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An Unbalanced Low-frequency Piezo electric Filter

To find the number of poles of the attenuation character-
istic b_c in the stop-band, the modulus of th $g_c/2$ is
equated to unity and it is shown that the attenuation
characteristic has three poles. The graph of b_c is
produced in Figure 3b.

Frequency f_b is the boundary frequency of the theoretical
pass-band. For purposes of calculation, the geometric
mean of the effective pass-band boundary frequency f_x and
the effective stop-band boundary frequency f_k is taken
as the frequency f_b (Ref 1).

The resonant frequencies f_1 and f_2 in the pass-band
are calculated by Eqs.(7) and (8) (Ref 2).

The characteristic impedance Z_c of the filter is given
in Eq.(13). A graph of the characteristic impedance
calculated by Formula (13) is given in Figure 3. The
frequency f_c in the stop-band is chosen so as to give

Card2/4   best matching of the impedance in the pass-band with the

An Unbalanced Low-frequency   Piezoelectric Filter

load impedance R_0 . The limit of the effective pass-band f_x is the point where the impedance Z_c equals the nominal impedance R_{nom} , i.e. Z_c for $f = 0$. Maximum impedance of Z_c corresponds to the frequency:

$$f_m = \sqrt{2f_b^2 - f_c^2}$$

and corresponds to:

$$Z_{c\ max} = \frac{1}{2\pi p c_1 \sqrt{f_c^2 - f_b^2}}$$

Formulae for calculation of the filter elements and for finding the working attenuation are produced. It is shown that calculation of the working attenuation in the stop-band amounts to finding, and then summating, seven simple components. The calculation is simplified by use

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An Unbalanced Low-frequency Piezo-electric Filter SOV/106-58-6-10/13

of the graphs given in Figures 6 to 8. Figure 9 shows
the characteristic of the working attenuation of a filter
as measured.

There are 9 figures and 5 references, 4 of which are
Soviet and 1 German.

SUBMITTED: December 18, 1957

Card 4/4   1. Piezoelectric filters--Analysis

AUTHOR: Gel'mont, Z.Ya.   SOV/106-58-12-8/13

TITLE: Piezoelectric Filters with an Inductor Having a Given
Coupling Coefficient (P'yezoelektricheskiye fil'try,
soderzhashchiye katushki induktivnosti s zadannym
koeffitsiyentom svyazi)

PERIODICAL: Elektrosvyaz', 1958, Nr 12, pp 58 - 64 (USSR)

ABSTRACT: The use of inductively coupled coils in piezoelectric
filters gives flexibility and economy of components; one
double-winding coil is equivalent to two single-winding
inductances and its impedance transformation properties
permit a wide range of resonator dimensions and capacity
values.   Low-pass and high-pass piezoelectric filter
circuits, both balanced and unbalanced, were given by
Mason, Velikin et al, and Herzog (Refs 1-4).   These
circuits are simplified in this article, so that fewer
components are used. The balanced circuits and their
characteristics are given in Fig 1 and the unbalanced
circuits in Figs 4,5 and 6. The equivalent circuits are
obtained by replacing the piezoelectric resonators by
their equivalent circuits and the inductor by the circuit
shown in Fig 2.   The voltage- and current-resonance

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